

ATTACHMENT "A"

2 April 1956

Around mid-1954 Lockheed Aircraft Corporation initiated independently the development of a high-altitude, single-engine, jet aircraft in the hope of obtaining a military contract for the aircraft, and the plan of using the prototype model as a test bed or "platform" for carrying out a variety of its own experimental activities. LAC carried out the development and testing of its experimental aircraft in consultation with the NACA (National Advisory Committee for Aeronautics). NACA was instrumental, for example, in making available a newly-developed fuel for the experimental aircraft, and was also of assistance in solving fuel control problems.

Although Lockheed developed the first experimental prototype on its own initiative, the aircraft's performance during successful test flights attracted USAF attention and interest. The high altitude performance of the aircraft made it a suitable vehicle for use in a joint USAF-AEC test program. Contractual negotiations between Lockheed and the USAF proceeded rapidly. The USAF, after Lockheed's development of the aircraft was well advanced, placed a limited order for the aircraft which has since been designated the U-2; first deliveries were made late in 1955.

Late in 1955, the NACA began planning for a high altitude research program of broad interest to U.S. aeronautical science, both civilian and military. NACA, original promoter of the program, has provided guidance in the development of equipment and instrumentation required to perform the research mission and will coordinate the exploitation and dissemination of the scientific results obtained. The primary objective of NACA's program is the gathering of meteorological data, e.g., turbulence associated with the jet stream and other atmospheric conditions, temperature and wind structures at jet levels, cloud photography, etc., at altitudes up to 55,000 feet--data which would assist in the development of new forecasting techniques and provide climatological background for meteorological research by governmental and private agencies and institutions in the United States. Widespread but simultaneous weather observations from various points in the Northern Hemisphere will enable an integrated study of high altitude phenomena which is expected to be of particular value. Certain ancillary aspects of the NACA test program remain classified. NACA considered the newly-procured USAF U-2 the most suitable vehicle for carrying out its research program. The USAF agreed to make available a limited number of U-2's to NACA since the joint USAF-AEC test program was seasonal and intermittent in nature whereas NACA's program is considered of definite interest to the USAF, particularly the Air Weather Service.

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Thus far, NACA has obtained four U-2 aircraft. Pilots employed in the NACA program are civilians hired and trained by LAC and made available to NACA specifically for the latter's research activities. NACA could not afford to draw upon its limited and already heavily committed group of test pilots. Lockheed also was unable to spare pilot personnel for the program, but did undertake the hiring and training of highly-qualified civilians, most of whom are ex-service airmen with jet experience.

These activities will be conducted both in the United States and abroad. Since NACA does not have independent facilities for conducting test programs abroad, the overseas program will be organized as a "joint task force" based at USAF installations and supported by appropriate USAF major commands. The Air Weather Service will act as USAF "executive agent" in support of NACA activities, and will activate provisional units to give operational direction and render direct support to NACA. The Weather Reconnaissance Squadron, Provisional, (1st) has recently been activated to support the initial NACA research team now being assembled.

ATTACHMENT "B"

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Under cover of the NACA-AWS high altitude research program described separately (Attachment "A"), Air Weather Service will carry out a parallel and classified mission: upper air sampling of thermonuclear debris resulting from atomic tests. Data concerning the quantity of these fission products, which exist in the stratosphere and filter down slowly into the lower atmosphere, will be of great value to the AEC and Department of Defense in their analyses of radioactive cloud geometry and composition.

Just as is the case in NACA's meteorological research, the integration of sampling data obtained simultaneously at various points in the Northern Hemisphere will be of particular value.